CLAIMS

1. Mobile or portable apparatus for preparing beverages comprising:

- a module for delivering a beverage by supplying a pressurized liquid,
- a liquid feed tank of sufficient capacity for supplying the module with several volumes of liquid for repeatedly supplying more than one beverage,
- pressurizing means suitable for supplying the module with pressurized liquid,

a liquid feed chamber, of which the capacity is several times smaller than the capacity of the tank;

said chamber being arranged, in a filling configuration, to communicate with the tank in order to be filled with liquid and,

said chamber being arranged, in a module feeding configuration, to communicate with the pressurizing means in order to pressurize the liquid in the chamber and to inject pressurized liquid into the module and thereby permit delivery of the liquid through the module,

characterized in that the pressurizing means comprises at least one autonomous reserve of pressurized gas, and

wherein in the module feeding configuration,

the gas enters into direct contact with the liquid present in the chamber while the tank remains isolated from the pressure with respect to the chamber, that is to say that the liquid present in the tank is not subjected to the gas pressure exerted in the chamber.

2. Apparatus according to Claim 1, characterized in that the module is an extraction module suitable for receiving a portion of food substance for the preparation of a beverage by supplying a pressurized liquid from the chamber through said substance.

3. Apparatus according to Claim 2, characterized in that it comprises valve means that are movable in at least two positions to act,

a) in a chamber filling position, to place the chamber in the filling configuration, and

b) in a position for feeding the module by the chamber to permit the extraction of the portion in the extraction module.

4. Apparatus according to Claim 3, characterized in that the chamber is positioned under half of the tank so as to be supplied with liquid under the effect of the hydrostatic pressure of the tank when the valve means are actuated to restore the chamber to a pressure substantially equivalent to atmospheric pressure.

5. Apparatus according to any one of the preceding claims, characterized in that the chamber is connected to the tank by a liquid inlet actuated by a one-way valve; said valve is opened during filling by the hydrostatic effect of the thrust of the liquid from the tank to the chamber, and is kept closed by the thrust of the liquid present in the feed chamber under the pressure exerted by the gas.

6. Apparatus according to any one of the preceding claims, characterized in that the chamber is made of pressure-resistant and impact-resistant material(s), such as metals and/or plastics.

7. Apparatus according to any one of the preceding claims, characterized in that the tank comprises thermally insulating walls.

8. Apparatus according to Claim 7, characterized in that the insulating walls comprise at least one internal wall of material with a low specific heat and at least one insulation layer surrounding the internal wall.

9. Apparatus according to Claim 8, characterized in that said internal wall is made of glass or metal.

10. Apparatus according to any one of Claims 1 to 9, characterized in that the chamber is located inside the tank.

11. Apparatus according to Claim 10, characterized in that the chamber is mechanically isolated from impacts with respect to the inner surface of the insulating walls of the tank.

12. Apparatus according to any one of Claims 1 to 9, characterized in that the chamber is positioned outside the tank.

13. Apparatus according to any one of Claims 3 to 10, characterized in that the valve means comprise a two-way valve that is manually or electrically actuated.

14. Apparatus according to any one of the preceding claims, characterized in that the gas supply pressure is between 2 and 25 bar.

15. Apparatus according to Claim 14, characterized in that the gas is compressed air, CO_2, N_2, N_2O, O_2 or argon or a mixture thereof.

16. Apparatus according to any one of Claims 2 to 15, characterized in that it comprises means for heating the liquid before its introduction into the extraction module.

17. Apparatus according to Claim 16, characterized in that the heating means are electrical means of the resistive type or a thermo block or means of the burner type using a solid, gaseous and/or liquid fuel.

18.Apparatus according to Claim 16, characterized in that the built-in electric power supply means are provided to supply the electrical heating means; these power supply means comprise at least one electric battery.

19.Apparatus according to Claim 17 or 18, characterized in that electrical connecting means are provided in order to supply the heating means periodically during connection of the electrical connecting means to an external electric power supply source.

20.Apparatus according to Claim 19, characterized in that the electrical connecting means comprise a mains AC electrical connector and/or and an electric power connector for the temporary connection to a mobile or fixed power supply of the cigarette lighter type or an electrical terminal or substation delivering low-voltage power.

21.Apparatus according to Claim 1, characterized in that the module is a pressurized-liquid delivery module.

22.Apparatus for preparing beverages comprising:

- a module for delivering a beverage by supplying a pressurized liquid,
- a liquid feed tank of sufficient capacity for supplying the module with several volumes of liquid for repeatedly supplying more than one beverage,
- pressurizing means suitable for supplying the module with pressurized liquid,
- a liquid feed chamber, of which the capacity is several times smaller than the capacity of the tank;

said chamber being arranged, in a filling configuration, to communicate with the tank in order to be filled with liquid and,

said chamber being arranged, in a module feeding configuration, to communicate with the pressurizing

means in order to pressurize the liquid in the chamber and to inject pressurized liquid into the module and thereby permit delivery of the liquid through the module,

characterized in that the apparatus is configured to be mobile or portable for service by being free of an electrical connection to an electrical power supply outlet during service,

wherein the pressurizing means is non-electrical and comprises at least one autonomous reserve of pressurized gas, and

wherein the tank comprises heat insulated walls to reduce the liquid heat loss during transport.

23.Method for delivering a pressurized liquid in a beverage distribution apparatus comprising: providing a liquid feed chamber which is filled by the effect of the difference of pressure between the chamber and a feed tank of the apparatus having a larger liquid capacity than that of the chamber and which chamber is emptied after filling the chamber under the pressure of a gas supplied from an autonomous gas reserve of the apparatus; said gas entering in the chamber to pressurize the chamber while the chamber is tight to the feed tank so that the feed tank is free of the pressure of gas.

24.Method according to claim 23, wherein the liquid feed chamber is filled by the effect of the hydrostatic pressure between the chamber and the tank.

25.Method according to claim 23 or 24, wherein the apparatus is portable or mobile.

26.Method according to claim 25, wherein, before transport, the tank is filled with a liquid at a temperature above ambient temperature and the tank is heat insulated.

27.Method according to claim 25, wherein, before transport, the tank is heated with a liquid at a temperature above ambient temperature and the tank is heat insulated.

28.Method according to claim 26 or 27, wherein before transport, the liquid is filled or heated at a temperature of at least 90°C.

29.Method according to claim 26, 27 or 28, wherein, the liquid in the tank is heated to compensate at least partially for the heat loss during service.

30.Method according to claim 27, wherein the liquid is heated in the apparatus with a heater, which is electrically supplied by a battery or a burner.